

CLAIMS

1. A temperature-compensated piezoelectric oscillator comprising a piezoelectric element, an amplifying circuit connected to one end of the piezoelectric element, a variable capacitance element connected the other end of the piezoelectric element, and compensation voltage generation means for applying a voltage corresponding to a temperature to the variable capacitance element, wherein

the compensation voltage generation means includes first voltage generation means for applying to one end of the variable capacitance element a first voltage that is variable depending on an ambient temperature and second voltage generation means for applying to the other end of the variable capacitance element a second voltage that is variable depending on the ambient temperature in a direction opposite to the first voltage.

2. The temperature-compensated piezoelectric oscillator according to Claim 1, wherein each of the first and second voltage generation means includes at least one thermo-sensitive element and a plurality of resistance elements.

3. The temperature-compensated piezoelectric oscillator according to Claim 2, wherein the thermo-sensitive element is a thermistor.

4. The temperature-compensated piezoelectric oscillator according to Claim 1, further comprising temperature

compensation data generation means for detecting the ambient temperature and for generating temperature compensation data corresponding to the detected temperature, wherein

each of the first and second voltage generation means includes DA conversion means for converting the temperature compensation data in a digital format into an analog signal.

5. The temperature-compensated piezoelectric oscillator according to any one of Claims 1 to 4, wherein the piezoelectric element is an AT-cut quartz crystal resonator.

6. The temperature-compensated piezoelectric oscillator according to any one of Claims 1 to 5, wherein the variable capacitance element is a variable capacitance diode.

7. An electronic apparatus comprising the temperature-compensated piezoelectric oscillator as set forth in any one of Claims 1 to 6.